

LANGUAGE: French

GI For diagram(s), see printed CA Issue.

AB Studies of the alkaline isomerization of linoleic and linolenic acids are reported. In the system 1,4-pentadienoic acid, alc. and heat cause displacement of the double bonds towards the 1,3 and 2,4 conjugated positions. Alkaline isomerization of 9-cis-12-cis-octadecadienoic acid yields octadecadienoic acids with conjugated cis-trans double bonds. On the other hand, 9-cis-12-cis-15-cis-octadecatrienoic acid gives, at various stages of the reaction, octadecatrienoic acids with cis-trans conjugated double bonds and an isolated cis bond, octadecatrienoic acids with 3 conjugated double bonds (trans-trans-cis), and cyclic acids represented principally by 9-(2-propylcyclohexa-3,5-dienyl)nonanoic acid (I). The geometric isomerism of the conjugated double bonds of the products formed by the isomerization depend on the structure(s) of the intermediate carbanion resulting when the mol. state is transformed into a neg. ionic state. The results are pertinent to the reactions occurring during autoxidn. of linoleic and linolenic acids. 35 references.

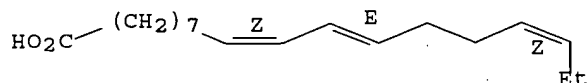
IT 15909-18-9P 25574-97-4P

RL: FORM (Formation, nonpreparative); PREP (Preparation)  
(formation of, from linolenic acid)

RN 15909-18-9 CAPLUS

CN 9,11,15-Octadecatrienoic acid, (9Z,11E,15Z)- (9CI) (CA INDEX NAME)

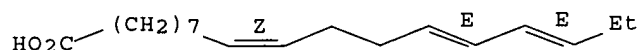
Double bond geometry as shown.



RN 25574-97-4 CAPLUS

CN 9,13,15-Octadecatrienoic acid, (Z,E,E)- (8CI) (CA INDEX NAME)

Double bond geometry as shown.



=&gt; d his

(FILE 'HOME' ENTERED AT 15:28:22 ON 03 FEB 2007)

FILE 'REGISTRY' ENTERED AT 15:28:44 ON 03 FEB 2007

L1 STRUCTURE UPLOADED

L2 STRUCTURE UPLOADED

L3 0 S L1 SSS SAM

L4 1 S L2 SSS SAM

L5 3 S L1 SSS FULL

L6 5 S L2 SSS FULL

FILE 'CAPLUS' ENTERED AT 15:31:59 ON 03 FEB 2007

L7 7 S L5 AND L6

=&gt; logoff

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

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=> s 15909-18-9
L1          1 15909-18-9
            (15909-18-9/RN)
```

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=> s 25574-97-4
L2          1 25574-97-4
            (25574-97-4/RN)
```

=> file caplus

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> d his

(FILE 'HOME' ENTERED AT 15:51:39 ON 03 FEB 2007)

FILE 'REGISTRY' ENTERED AT 15:51:45 ON 03 FEB 2007

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L2          1 S 25574-97-4
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FILE 'CAPLUS' ENTERED AT 15:52:46 ON 03 FEB 2007

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=> s l1 and l2
          24 L1
           1 L2
L3          1 L1 AND L2
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=> d ibib abs hitstr 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y

```
L3  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:      1969:404751  CAPLUS  Full-text
DOCUMENT NUMBER:       71:4751
TITLE:                  Comparison between the mechanisms of alkaline
                        isomerization and autoxidation of polyunsaturated C18
                        fatty acids
AUTHOR(S):              Strocchi, Antonino; Capella, Pompeo
CORPORATE SOURCE:       Univ. Bologna, Bologna, Italy
SOURCE:                 Revue Francaise des Corps Gras (1969), 16(1), 3-13
                        CODEN: RFCGAE; ISSN: 0035-3000
DOCUMENT TYPE:          Journal
LANGUAGE:               French
GI  For diagram(s), see printed CA Issue.
AB  Studies of the alkaline isomerization of linoleic and linolenic acids are
    reported. In the system 1,4-pentadienoic acid, alc. and heat cause
    displacement of the double bonds towards the 1,3 and 2,4 conjugated positions.
    Alkaline isomerization of 9-cis-12-cis-octadecadienoic acid yields
    octadecadienoic acids with conjugated cis-trans double bonds. On the other
```

hand, 9-cis-12-cis-15-cis-octadecatrienoic acid gives, at various stages of the reaction, octadecatrienoic acids with cis-trans conjugated double bonds and an isolated cis bond, octadecatrienoic acids with 3 conjugated double bonds (trans-trans-cis), and cyclic acids represented principally by 9-(2-propylcyclohexa-3,5-dienyl)nonanoic acid (I). The geometric isomerism of the conjugated double bonds of the products formed by the isomerization depend on the structure(s) of the intermediate carbanion resulting when the mol. state is transformed into a neg. ionic state. The results are pertinent to the reactions occurring during autoxidn. of linoleic and linolenic acids. 35 references.

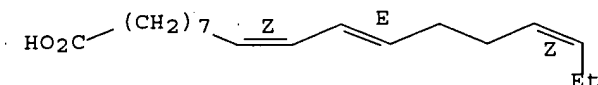
IT 15909-18-9P 25574-97-4P

RL: FORM (Formation, nonpreparative); PREP (Preparation)  
(formation of, from linolenic acid)

RN 15909-18-9 CAPLUS

CN 9,11,15-Octadecatrienoic acid, (9Z,11E,15Z)- (9CI) (CA INDEX NAME)

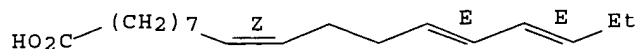
Double bond geometry as shown.



RN 25574-97-4 CAPLUS

CN 9,13,15-Octadecatrienoic acid, (Z,E,E)- (8CI) (CA INDEX NAME)

Double bond geometry as shown.



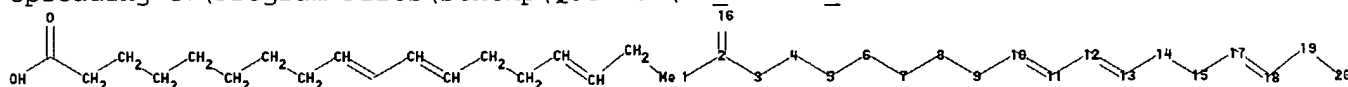
10/523,863

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10\_567419\_1.str



chain nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

chain bonds :

1-2 2-3 2-16 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-13 13-14 14-15

15-17 17-18 18-19 19-20

exact bonds :

2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-13 13-14 14-15 15-17  
17-18 18-19 19-20

normalized bonds :

1-2 2-16

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS  
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS  
18:CLASS 19:CLASS  
20:CLASS

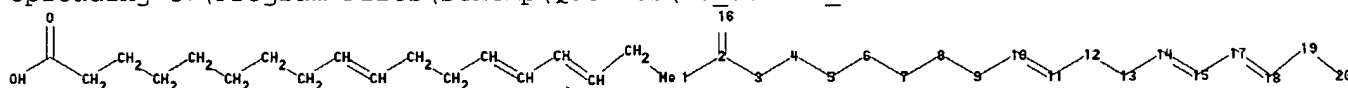
Stereo Geometric Centers:

13-12

L1 STRUCTURE UPLOADED

=>

Uploading C:\Program Files\Stnexp\Queries\10\_567419\_2.str



chain nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

chain bonds :

1-2 2-3 2-16 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-13 13-14 14-15

15-17 17-18 18-19 19-20

exact bonds :

2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-13 13-14 14-15 15-17  
17-18 18-19 19-20

normalized bonds :

1-2 2-16

STN search report

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS  
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS  
18:CLASS 19:CLASS  
20:CLASS

L2 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

=> d l2

L2 HAS NO ANSWERS

L2 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss sam

SAMPLE SEARCH INITIATED 15:29:54 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 87 TO ITERATE

100.0% PROCESSED 87 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 1181 TO 2299

PROJECTED ANSWERS: 0 TO 0

L3 0 SEA SSS SAM L1

=> s l2 sss sam

SAMPLE SEARCH INITIATED 15:30:07 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 87 TO ITERATE

100.0% PROCESSED 87 ITERATIONS

1 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 1181 TO 2299

PROJECTED ANSWERS: 1 TO 80

L4 1 SEA SSS SAM L2

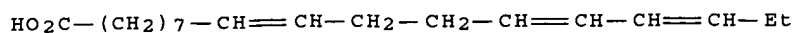
=> d scan

L4 1 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN

IN 9,13,15-Octadecatrienoic acid (7CI, 9CI)

STN search report

MF C18 H30 O2



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

ALL ANSWERS HAVE BEEN SCANNED

=&gt; s l1 sss full

FULL SEARCH INITIATED 15:31:06 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 1574 TO ITERATE

100.0% PROCESSED 1574 ITERATIONS  
SEARCH TIME: 00.00.01

3 ANSWERS

L5 3 SEA SSS FUL L1

=&gt; s l2 sss full

FULL SEARCH INITIATED 15:31:32 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 1574 TO ITERATE

100.0% PROCESSED 1574 ITERATIONS  
SEARCH TIME: 00.00.01

5 ANSWERS

L6 5 SEA SSS FUL L2

=&gt; file caplus

=&gt; d his

(FILE 'HOME' ENTERED AT 15:28:22 ON 03 FEB 2007)

FILE 'REGISTRY' ENTERED AT 15:28:44 ON 03 FEB 2007

L1	STRUCTURE UPLOADED
L2	STRUCTURE UPLOADED
L3	0 S L1 SSS SAM
L4	1 S L2 SSS SAM
L5	3 S L1 SSS FULL
L6	5 S L2 SSS FULL

FILE 'CAPLUS' ENTERED AT 15:31:59 ON 03 FEB 2007

=&gt; s l5 and l6

24 L5

10 L6

L7 7 L5 AND L6

=&gt; d ibib abs hitstr 1-

YOU HAVE REQUESTED DATA FROM 7 ANSWERS - CONTINUE? Y/(N):y

L7 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:384015 CAPLUS Full-text

DOCUMENT NUMBER: 144:411552

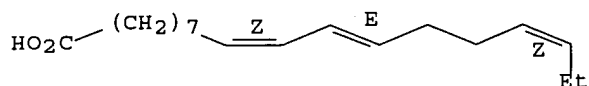
TITLE: Absorption and metabolism of conjugated  
 $\alpha$ -linolenic acid given as free fatty acids or  
triacylglycerols in rats

AUTHOR(S): Plourde, Melanie; Sergiel, Jean-Pierre; Chardigny,

STN search report

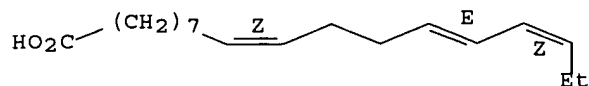
Jean-Michel; Gregoire, Stephane; Angers, Paul;  
Sebedio, Jean-Louis  
CORPORATE SOURCE: UMR INRA-ENESAD Flavic, Dijon, 21065, Fr.  
SOURCE: Nutrition & Metabolism (2005), 2, No pp. given  
CODEN: NMUEAZ; ISSN: 1743-7075  
URL: <http://www.nutritionandmetabolism.com/content/pdf/1743-7075-3-8.pdf>  
PUBLISHER: BioMed Central Ltd.  
DOCUMENT TYPE: Journal; (online computer file)  
LANGUAGE: English  
AB Background: Conjugated linoleic acid (CLA) is a group of polyunsatd. fatty acids which have been extensively studied in the past two decades. However, conjugated octadecatrienoic acid such as cis-9,trans-11,cis-15 and cis-9,trans-13,cis-15, recently identified, have not been extensively investigated. This work presents bioavailability and tissue incorporation of a mixture of conjugated octadecatrienoic (CLnA) acids ingested as free fatty acids (FFA) and triacylglycerols (TAG). Results: Male Wistar rats were fed rumenic acid (RA: cis-9,trans-11 18:2) and a CLnA mixture (cis-9,trans-11,cis-15 18:3 and cis-9,trans-13,cis-15 18:3) as FFA and TAG for 8 days. RA and CLnA were both totally absorbed when given as FFA as well as TAG. Both isomers of CLnA as FFA or TAG were incorporated into neutral lipids. Metabolites up to 22:6 conjugated isomers were present in liver and plasma phospholipids of rats fed the CLnA diets. Conclusion: Finally, CLnA are as well absorbed as RA in vivo and their incorporation into tissues and bioconversion are similar when ingested as FFA or as TAG.  
IT 15909-18-9 265108-52-9  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(absorption and metabolism of conjugated  $\alpha$ -linolenic acid given as free fatty acids or triacylglycerols in rats)  
RN 15909-18-9 CAPLUS  
CN 9,11,15-Octadecatrienoic acid, (9Z,11E,15Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 265108-52-9 CAPLUS  
CN 9,13,15-Octadecatrienoic acid, (9Z,13E,15Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2005:612077 CAPLUS Full-text  
DOCUMENT NUMBER: 143:109809  
TITLE: Use of conjugated linolenic acids for reducing body fat mass

10/523,863

INVENTOR(S): Garro, Juan-Miguel; Briand, Sandie  
 PATENT ASSIGNEE(S): Universite Laval, Can.  
 SOURCE: PCT Int. Appl., 52 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005063230	A1	20050714	WO 2004-CA2205	20041230
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: CA 2003-2454448 A 20031230

AB The invention discloses the use of conjugated linolenic acids selected from C18:3(9cis, 11 trans, 15 cis)octadecatrienoic acid, C18:3(9cis,13trans,15cis)octadecatrienoic acid, and mixts. thereof, in the reduction of body fat mass and in the treatment and/or prevention of obesity. These conjugated linolenic acids may be provided in the form of a food supplement or as a component of a prepared food product.

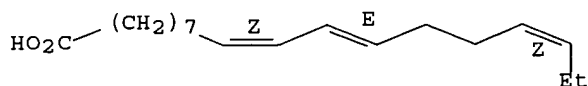
IT 15909-18-9 265108-52-9 844488-65-9

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (conjugated linolenic acids for reducing body fat mass)

RN 15909-18-9 CAPLUS

CN 9,11,15-Octadecatrienoic acid, (9Z,11E,15Z)- (9CI) (CA INDEX NAME)

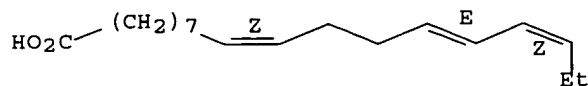
Double bond geometry as shown.



RN 265108-52-9 CAPLUS

CN 9,13,15-Octadecatrienoic acid, (9Z,13E,15Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 844488-65-9 CAPLUS

CN 9,11,15-Octadecatrienoic acid, (9Z,11E,15Z)-, mixt. with



10/523,863

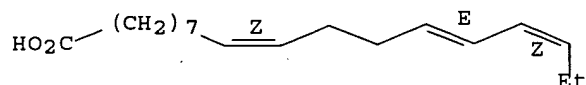
(9Z,13E,15Z)-9,13,15-octadecatrienoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 265108-52-9

CMF C18 H30 O2

Double bond geometry as shown.

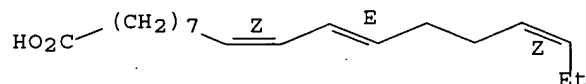


CM 2

CRN 15909-18-9

CMF C18 H30 O2

Double bond geometry as shown.



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:141007 CAPLUS Full-text

DOCUMENT NUMBER: 142:212334

TITLE: Conjugated linolenic acids and methods of preparation and purification and uses thereof

INVENTOR(S): Garro Galvez, Juan-Miguel; Angers, Paul; Briand, Sandie

PATENT ASSIGNEE(S): Universite Laval, Can.

SOURCE: PCT Int. Appl., 65 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005014516	A1	20050217	WO 2004-CA1470	20040806
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

STN search report

10/523,863

CA 2436650	A1	20050206	CA 2003-2436650	20030806
CA 2534670	A1	20050217	CA 2004-2534670	20040806
US 2006281815	A1	20061214	US 2006-567419	20060821
PRIORITY APPLN. INFO.:			CA 2003-2436650	A 20030806
			WO 2004-CA1470	W 20040806

AB This invention relates to a new conjugated linoleic acids, a process for preparation thereof and method of use in treatment of cancer. Thus this invention is concerned with the preparation and purification of conjugated linoleic acids from materials rich in alpha or gamma linoleic acids. The reaction produces a mixture containing a 1:1 ratio of 9Z, 11E, 15Z-octadecatrienoic acid and 9Z,13E,15Z-octadecatrienoic acid. The mixture can be purified  $\leq 90\%$  by liquid chromatog., crystallization or urea crystallization. The mixture of 1:1 9Z, 11E, 15Z-octadecatrienoic acid and 9Z, 13E, 15E, 15Z-octadecatrienoic acid have anticancerous activities.

IT 15909-18-9P 844488-65-9P, CLnA

RL: PAC (Pharmacological activity); PUR (Purification or recovery); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

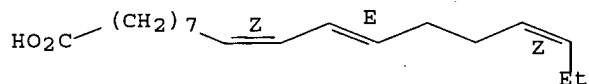
(conjugated linolenic acids and methods of preparation and purification from

vegetable oils using bases and uses thereof for treatment of cancer and as drying oil in varnishes)

RN 15909-18-9 CAPLUS

CN 9,11,15-Octadecatrienoic acid, (9Z,11E,15Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 844488-65-9 CAPLUS

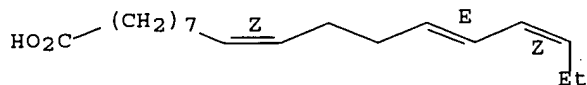
CN 9,11,15-Octadecatrienoic acid, (9Z,11E,15Z)-, mixt. with (9Z,13E,15Z)-9,13,15-octadecatrienoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 265108-52-9

CMF C18 H30 O2

Double bond geometry as shown.

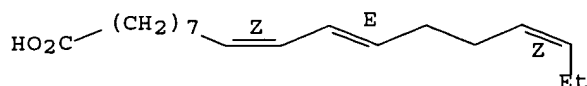


CM 2

CRN 15909-18-9

CMF C18 H30 O2

Double bond geometry as shown.



IT 265108-52-9P

RL: PAC (Pharmacological activity); PUR (Purification or recovery); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); .PREP (Preparation); USES (Uses)

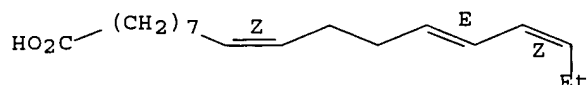
(mov,ediconjugated linolenic acids and methods of preparation and purification

from vegetable oils using bases and uses thereof for treatment of cancer and as drying oil in varnishes)

RN 265108-52-9 CAPLUS

CN 9,13,15-Octadecatrienoic acid, (9Z,13E,15Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:106639 CAPLUS Full-text

DOCUMENT NUMBER: 142:354576

TITLE: Metabolites of conjugated isomers of  $\alpha$ -linolenic acid (CLnA) in the rat

AUTHOR(S): Destailats, Frederic; Berdeaux, Olivier; Sebedio, Jean-Louis; Juaneda, Pierre; Gregoire, Stephane; Chardigny, Jean-Michel; Bretillon, Lionel; Angers, Paul

CORPORATE SOURCE: Department of Food Science and Nutrition and Dairy Research Center (STELA), Universite Laval, Sainte Foy, QC, G1K 7P4, Can.

SOURCE: Journal of Agricultural and Food Chemistry (2005), 53(5), 1422-1427

CODEN: JAFCAU; ISSN: 0021-8561

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Rumelenic acid (9-cis,11-trans,15-cis-CL18:3) is a naturally occurring conjugated isomer of  $\alpha$ -linolenic acid (CLnA) in milk fat. The CLnA metabolism was studied in weanling male Wistar rats using synthetic CLnA mixture of equimolar quantities of 9-cis,11-trans,15-cis-CLnA and 9-cis,13-trans,15-cis-CLnA isomers. The CLnA mixture was fed at a high level of 150 mg/day for 4 days to rats that had been fed fat-free diet for 2 wk. After CLnA feeding, the liver and epididymal adipose tissue lipids were extracted and analyzed. Six metabolites of the 9-cis,11-trans,15-cis-CLnA and 2 isomers of 9-cis,13-trans,15-cis-CLnA were identified by GC-MS.

IT 15909-18-9, 9-cis,11-trans,15-cis-Octadecatrienoic acid

265108-52-9, 9-cis,13-trans,15-cis-Octadecatrienoic acid

RL: BSU (Biological study, unclassified); FFD (Food or feed use); BIOL

10/523,863

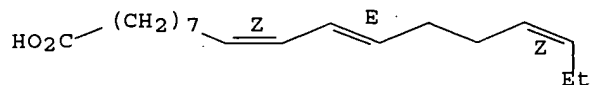
(Biological study); USES (Uses)

(dietary  $\alpha$ -linolenic acid conjugated isomers and their metabolites in liver and epididymal adipose tissue lipids of male Wistar rats)

RN 15909-18-9 CAPLUS

CN 9,11,15-Octadecatrienoic acid, (9Z,11E,15Z)- (9CI) (CA INDEX NAME)

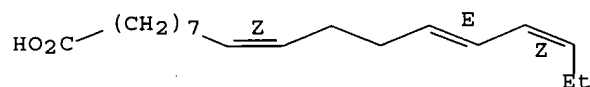
Double bond geometry as shown.



RN 265108-52-9 CAPLUS

CN 9,13,15-Octadecatrienoic acid, (9Z,13E,15Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:120813 CAPLUS Full-text

DOCUMENT NUMBER: 140:183581

TITLE: New conjugated linolenic acids and methods for their commercial preparation and purification

INVENTOR(S): Angers, Paul; Destailats, Frederic; Galvez, Juan Miguel Garro

PATENT ASSIGNEE(S): Universite Laval, Can.

SOURCE: PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004013078	A1	20040212	WO 2003-CA1183	20030806
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2396840	A1	20040206	CA 2002-2396840	20020806
CA 2495532	A1	20040212	CA 2003-2495532	20030806

STN search report

10/523,863

AU 2003281850	A1	20040223	AU 2003-281850	20030806
EP 1546082	A1	20050629	EP 2003-766097	20030806
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2006281814	A1	20061214	US 2006-523863	20060117
PRIORITY APPLN. INFO.:			CA 2002-2396840	A 20020806
			WO 2003-CA1183	W 20030806

AB A method for the preparation and purification of conjugated linolenic acids is described. The method comprises blending a mixture of vegetable oils and or fats including various concns. of alpha- or gamma- and/or both linolenic acids with a base. The method transforms approx. over two thirds of  $\alpha$ -linolenic acid (i.e., 9Z,12Z,15Z-octadecatrienoic acid) into 9Z,11E,15Z-octadecatrienoic acid and 9Z,13E,15Z-octadecatrienoic acid. The method also transforms gamma-linolenic acid (i.e., 6Z,9Z,12Z-octadecatrienoic acid) into 6Z,8E,15Z-octadecatrienoic acid and 6Z,10E,12Z-octadecatrienoic acid. In all cases, geometrical isomers and fully conjugated isomers are also produced.

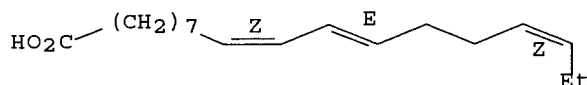
IT 15909-18-9F 265108-52-9P

RL: COS (Cosmetic use); FFD (Food or feed use); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(new conjugated linolenic acids and methods for their com. preparation and purification)

RN 15909-18-9 CAPLUS

CN 9,11,15-Octadecatrienoic acid, (9Z,11E,15Z)- (9CI) (CA INDEX NAME)

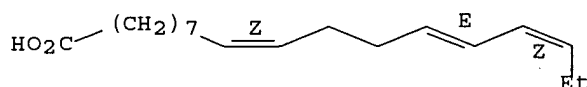
Double bond geometry as shown.



RN 265108-52-9 CAPLUS

CN 9,13,15-Octadecatrienoic acid, (9Z,13E,15Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L7 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:277951 CAPLUS Full-text

DOCUMENT NUMBER: 132:308188

TITLE: Synthesis of conjugated polyunsaturated fatty acids

INVENTOR(S): Sih, Charles J.; Chen, Chien-an

PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA

SOURCE: PCT Int. Appl., 25 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2000023412	A2	20000427	WO 1999-US23669	19991012

STN search report

WO 2000023412

A3

20000908

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6316645

B1

20011113

US 1998-175793

19981020

PRIORITY APPLN. INFO.:

US 1998-175793

A 19981020

OTHER SOURCE(S):

CASREACT 132:308188

AB The present invention provides a method of preparing conjugated polyunsatd. fatty acids, comprising of the steps of deprotonating a polyunsatd. fatty acid with a super strong bas, reprotonating the fatty acid to yield conjugated fatty acid isomers, and reacting the conjugated fatty acid isomers with a regioselective lipase to yield substantially pure stereospecific conjugated isomer. Thus, Schlosser base is added to a THF solution of linoleic acid, the crude product was dissolved in Et<sub>2</sub>O/MeOH and treated with diazomethane to give 77% Me 9-cis-11-trans-linoleate and Me 10-trans-12-cis-linoleate. The esters in acetone were purified with Lipase GC-4 (Geotrichum candidum Amano) in phosphate buffer.

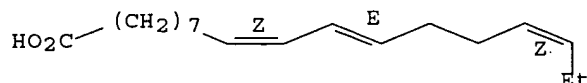
IT 15909-18-9P, 9-cis-11-trans-15-cis-Octadecatrienoic acid  
265108-52-9P, 9-cis-13-trans-15-cis-Octadecatrienoic acid

RL: SPN (Synthetic preparation); PREP (Preparation)  
(synthesis of conjugated polyunsatd. fatty acids)

RN 15909-18-9 CAPLUS

CN 9,11,15-Octadecatrienoic acid, (9Z,11E,15Z) - (9CI) (CA INDEX NAME)

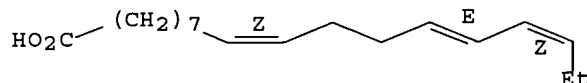
Double bond geometry as shown.



RN 265108-52-9 CAPLUS

CN 9,13,15-Octadecatrienoic acid, (9Z,13E,15Z) - (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L7 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1969:404751 CAPLUS Full-text

DOCUMENT NUMBER: 71:4751

TITLE: Comparison between the mechanisms of alkaline isomerization and autoxidation of polyunsaturated C18 fatty acids

AUTHOR(S): Strocchi, Antonino; Capella, Pompeo

CORPORATE SOURCE: Univ. Bologna, Bologna, Italy

SOURCE: Revue Francaise des Corps Gras (1969), 16(1), 3-13

CODEN: RFCGAE; ISSN: 0035-3000

DOCUMENT TYPE:

Journal